

A&L Systems — SEAM 100 Aluminium Service Channel

NBS Specification Clauses — CAWS Work Section Z11: Purpose Made Metalwork

Draft for insertion into a project specification (NBS Chorus or written spec), covering the SEAM 100 profile only. Dimensional and material figures are taken from A&L Systems' SEAM 100 technical design guide (ref. ATDG-SEA-100-001) and extended across the range on the basis confirmed by A&L Systems. Text in red italics marks items still needing confirmation — mainly test certificates, standards references, exact bracket dimensions and project-specific values — before issue on a live project.

To be read with: Preliminaries/General conditions; K10/K40 Suspended ceilings and access panels; Z12 Preservative and fire retardant treatments; Z20 Fixings and adhesives; Z22 Sealants.

GENERAL

Z11/110 SCOPE OF WORK

Purpose-made extruded aluminium linear service channel for integration within suspended ceiling systems, supplied by A&L Systems Ltd, for the containment and support of lighting, fire services, AV equipment and small ductwork. SEAM 100 is a flush-mounted channel, sitting level with the surrounding ceiling plane. Suited to boardrooms and meeting spaces, open-plan offices, reception and feature ceilings, corridors and circulation areas, and education, healthcare and commercial interiors.

Z11/115 RELATED WORK

Refer to the ceiling grid and suspension system specification, electrical containment and luminaire specification, fire stopping/fire systems specification, and AV containment specification. Coordinate channel location, running lengths and fixing centres with these systems before fabrication.

Z11/120 DESIGN RESPONSIBILITY

Channel layout, running lengths and joint positions to be coordinated with the architect's reflected ceiling plan. *[Confirm design responsibility — architect-specified layout, or contractor-designed subject to A&L Systems' technical approval]*

PRODUCTS

Z11/210 MANUFACTURER

A&L Systems Ltd, 29 Reed Pond Walk, Gidea Park, Romford, Essex RM2 5EB. Email: info@al-systems.co.uk. Web: www.al-systems.co.uk. *[Confirm current telephone number for inclusion]*

Z11/215 PRODUCT REFERENCE AND ORDERING CODE

SEAM 100 flush ceiling channel. Ordering code format: [Product]-[Width]-[Length]-[Finish]-[Colour], e.g. SEA-100-3000-PC-RAL9010 (SEAM, 100mm width, 3000mm length, powder coat, RAL 9010). *[Confirm exact product reference and ordering code prefix for SEAM 100 with A&L Systems]*

Z11/220 MATERIAL — ALUMINIUM PROFILE

Extruded aluminium profile to alloy EN AW-6063 T6, 2mm wall thickness, minimum internal tooling radius 1mm. Base material: Cortizo INFINITY® aluminium billet (alloy 6063), supplied by Aluminios Cortizo, S.A.U., Extramundi, La Coruña, Spain, with a minimum of 80% post-consumer recycled aluminium content, verified under Environmental Product Declaration DAPcons®.100.129 (ISO 14025 / EN 15804+A2:2020, Bureau Veritas verified, valid to 02/12/2027). Material specification common across the full SEAM and REVEAL range; weight per metre varies with profile width. *[Confirm exact recycled-content percentage achieved in A&L's finished extruded profile — the Cortizo billet is certified to a minimum of 80%, up to 100% achievable depending on batch — and confirm extrusion tolerance standard, e.g. to BS EN 755 / BS EN 12020, with A&L Systems]*

Z11/225 FIXING BRACKETS

SEAM Bracket: folded steel, 2mm thickness, minimum bend radius R2, overall approximately 94mm wide x 74mm high, powder coated black, click-in type. Fixed to unistrut or top-hat hanger sub-grid, or to the surrounding ceiling product's sub-grid, at maximum 1200mm centres. *[Bracket dimensions are indicative, scaled from the SEAM 100 bracket (94 x 74mm) — confirm exact dimensions and steel grade/corrosion protection standard, e.g. galvanized to BS EN ISO 1461, with A&L Systems]*

Z11/230 END CAPS

SEAM End Cap: aluminium, width 100mm to match profile, overall depth 16.5mm, colour-matched powder coat finish, push-fit installation with no visible fixings, screws or adhesives. Fitted at exposed ends of channel runs.

Z11/235 ACCESSORIES

SEAM Bracket (mounting), SEAM End Cap (finishing) and SEAM Joiner (for continuous runs between stock lengths), all manufactured by A&L Systems Ltd to match the specified profile and finish.

Z11/240 DIMENSIONS AND TOLERANCES

SEAM 100: 100mm wide x 30mm high, supplied as stock lengths up to 3000mm; cut to size or jointed via SEAM Joiner to form longer continuous runs, in accordance with the reflected ceiling plan. Allow 2–4mm expansion joint between adjoining lengths.

Z11/250 FINISHES

- a) Standard: mill finish, or polyester powder coat in the manufacturer's standard RAL range.
- b) Extended: specialist powder coat finishes, anodising, metallic and textured finishes, and 3M DI-NOC wrap, by arrangement with the manufacturer.
- c) Architectural vinyl wrap: fire-rated, *[confirm exact classification and test certificate reference with A&L Systems, e.g. to BS EN 13501-1]*, from a range of manufacturers, over 1,000 finishes including metal, wood and fabric effects.

Z11/255 FIRE PERFORMANCE

Aluminium profile: non-combustible. *[Confirm reaction-to-fire classification and supporting test certificate with A&L Systems, e.g. Class A1 to BS EN 13501-1, before use in life-safety-critical locations]* Vinyl-wrapped finish options: fire-rated to Class B — see Z11/250(c).

Z11/260 SUSTAINABILITY

Aluminium profile extruded from Cortizo INFINITY® billet, certified to a minimum of 80% post-consumer recycled aluminium content under Environmental Product Declaration DAPcons®.100.129 (ISO 14025 / EN 15804+A2:2020, registered 04/10/2022, valid until 02/12/2027), independently verified by Bureau Veritas. Profile fully recyclable at end of life. Channel manufactured and stocked in the UK, designed for circular construction. *[Confirm exact recycled-content percentage in A&L's finished profile, applicable BREEAM credit contribution, and whether a separate EPD/mill certificate covering A&L's own extrusion process (beyond the Cortizo billet EPD) is available]*

Z11/265 ENVIRONMENT AND MAINTENANCE

For internal use only. Corrosion resistance: excellent. *[confirm supporting test standard, e.g. salt spray to BS EN ISO 9227]* Clean with mild detergent and a soft cloth; do not use abrasive cleaning agents.

Z11/270 SAMPLES

Submit for approval one sample length, minimum 300mm, of each specified profile in the specified finish before proceeding with fabrication or placing order. *[Confirm sample lead time with A&L Systems]*

EXECUTION

Z11/610 FABRICATION

Channel fabricated from extruded aluminium profile to the dimensions and tolerances specified. Corners, junctions and changes of direction factory-fabricated or purpose-made on site to a consistent standard of finish, free from distortion, burrs and visible fixings unless indicated otherwise. *[Tolerances available on request from A&L Systems — confirm and insert before issue]*

Z11/615 FIXING CENTRES

Fix SEAM Brackets at maximum 1200mm centres, positioned in accordance with the manufacturer's installation guide, to a level and securely fixed primary grid (unistrut or compatible).

Z11/620 INSTALLATION SEQUENCE

Install in accordance with the manufacturer's installation guide: (1) prepare and level the primary grid; (2) locate the profile between primary grid members; (3) attach SEAM Brackets at the specified centres; (4) install lighting, fire and AV services within the profile; (5) fit SEAM End Caps to complete the installation and conceal profile ends. Ensure channel runs are level, straight and flush with the surrounding ceiling plane, with joints between lengths tight, aligned and allowing the specified 2–4mm expansion gap.

Z11/630 COORDINATION

Coordinate channel positions with lighting, fire and AV installers before fixing. Do not cut, drill or otherwise modify profiles on site without the manufacturer's written approval.

Z11/640 PROTECTION

Protect installed channel and finishes from damage until practical completion. Make good or replace any damaged sections to match adjacent work.

Z11/650 WARRANTY

[Insert A&L Systems' warranty period and terms]